I. CLAIMS

The following Listing of Claims shall replace all prior versions, and listings, of claims in application.

Listing of Claims:

Claim 1 (Currently amended) A computer implemented method for creating a bucket transition distribution for a portfolio of bonds ~~simulating the transition of one or more bonds between a plurality of price buckets~~, comprising:

identifying a first bond from the portfolio of bonds;

identifying [[the]] a plurality of price buckets;

identifying a plurality of attributes related to [[a]] the first bond, wherein the plurality of attributes includes a first bond price;

associating the first bond with a starting bucket based on the first bond price, wherein the starting bucket is one of the plurality of price buckets;

calculating one or more coefficients based on a historical data set related to the first bond, wherein the historical data set relates to the plurality of attributes;

calculating a plurality of bucket transition probabilities for the first bond based on at least the one or more coefficients and the plurality of attributes, wherein each of the plurality of bucket transition probabilities reflects the probability of the first bond transitioning from the start bucket to one of the plurality of price buckets;

estimating a state probability ~~first bucket transition distribution~~ for the first bond using the bucket transition probabilities;

simulating the transition of the first bond between the starting bucket and the plurality of price buckets using the state probability ~~first bucket transition distribution~~, thereby producing a first bucket transition distribution ~~a plurality of simulated attributes~~; [[and]]

simulating the transition of the first bond between the plurality of price buckets using the state probability, thereby updating the first bucket transition distribution ~~simulated attributes~~.

identifying a second bond from the portfolio of bonds;

producing a second bucket transition distribution based on the second bond; and

grouping the first bucket transition distribution and the second bucket transition distribution, thereby creating the bucket transition distribution for a portfolio of bonds.

Claim 2 (Previously presented) The computer implemented method of claim 1, wherein one of the price buckets corresponds to an exit state, and wherein simulating the transition of the first bond between the plurality of price buckets includes estimating a plurality of bucket transitions based on the bucket transition probabilities until the exit state or a maturity date of the first bond is reached, thereby completing a first simulation.

Claim 3 (Previously presented) The computer implemented method of claim 2, wherein the exit state is one of a default and a call.

Claim 4 (Previously presented) The computer implemented method of claim 1, wherein simulating the transition of the first bond between the plurality of price buckets includes determining the probability that the first bond is in a particular bucket at a particular time.

Claim 5 (Previously presented) The computer implemented method of claim 4, wherein one of the price buckets corresponds to a default state and simulating the transition of the first bond between the plurality of price buckets includes determining a default rate for a particular time period for the first bond.

Claim 6 (Previously presented) The computer implemented method of claim 5, wherein simulating the transition of the first bond between the plurality of price buckets includes determining a cumulative default rate for a number of time periods by summing default balances for each of the number of time periods and dividing the sum by an average balance for a first of the number of time periods.

Claim 7 (Previously presented) The computer implemented method of claim 2, further including conducting multiple simulations.

Claim 8 (Cancelled)

Claim 9 (Currently amended) A system for creating a bucket transition distribution for a portfolio of bonds ~~estimating the transition of one or more bonds between a plurality of price buckets~~, comprising:

means for identifying a first bond from the portfolio of bonds;

means for identifying [[the]] a plurality of price buckets;

means for identifying a plurality of attributes related to [[a]] the first bond, wherein the plurality of attributes include a first bond price;

means for associating the first bond with a starting bucket based on the first bond price, wherein the starting bucket is one of the plurality of price buckets;

means for calculating one or more coefficients based on a historical data set related to the first bond, wherein the historical data set relates to the plurality of attributes;

means for calculating a plurality of bucket transition probabilities for the first bond based on at least the one or more coefficients and the plurality of attributes, wherein each of the plurality of bucket transition probabilities reflects the probability of the first bond transitioning from the start bucket to one of the plurality of price buckets;

means for estimating a state probability ~~first bucket transition distribution~~ for the first bond using the bucket transition probabilities;

means for simulating the transition of the first bond between the starting bucket and at least one of the plurality of price buckets using the state probability ~~first bucket transition distribution~~, thereby producing a first bucket transition distribution; ~~plurality of simulated attributes; and~~

means for simulating the transition of the first bond between the plurality of price buckets using the state probability, thereby by updating the first bucket transition distribution ~~simulated attributes.~~

means for identifying a second bond from the portfolio of bonds;

means for producing a second bucket transition distribution based on the second bond; and

means for grouping the first bucket transition distribution and the second bucket transition distribution, thereby creating the bucket transition distribution for the portfolio of bonds.

Claim 10 (Previously presented) The system of claim 9, wherein the means for simulating the transition of the first bond between the plurality of price buckets further includes estimating a plurality of bucket transitions based on the bucket transition probabilities until an exit state, corresponding to one of the price buckets, or a maturity date of the first bond is reached, thereby completing a first simulation.

Claim 11 (Original) The system of claim 10, wherein the exit state is one of a default and a call.

Claim 12 (Previously presented) The system of claim 9, wherein the means for simulating the transition of the first bond between the plurality of price buckets includes a means for determining the probability that the first bond is in a particular bucket at a particular time.

Claim 13 (Previously presented) The system of claim 12, wherein the means for simulating the transition of the first bond between the plurality of price buckets includes a means for determining a default rate for a particular time period for the first bond.

Claim 14 (Previously presented) The system of claim 13, wherein the means simulating the transition of the first bond between the plurality of price buckets includes a means for determining a cumulative default rate for a number of time periods by summing default balances

for each of the number of time periods and dividing the sum by an average balance for a first of the number of time periods.

Claim 15 (Previously presented) The system of claim 9, further including conducting multiple simulations.

Claim 16 (Cancelled)

Claim 17 (Currently amended) A computer readable medium for creating a bucket transition distribution for a portfolio of bonds ~~simulating the transition of one or more bonds between a plurality of price buckets~~, the medium comprising a program to cause a processor to implement:

identifying a first bond from the portfolio of bonds;

identifying [[the]] a plurality of price buckets;

identifying a plurality of attributes related to [[a]] the first bond, wherein the plurality of attributes includes a first bond price;

associating the first bond with a starting bucket based on the first bond price, wherein the starting bucket is one of the plurality of price buckets;

calculating one or more coefficients based on a historical data set related to the first bond, wherein the historical data set relates to the plurality of attributes;

calculating a plurality of bucket transition probabilities for the first bond based on at least the one or more coefficients and the plurality of attributes, wherein each of the plurality of bucket transition probabilities reflects the probability of the first bond transitioning from the start bucket to one of the plurality of price buckets;

estimating a state probability ~~first bucket transition distribution~~ for the first bond using the bucket transition probabilities;

simulating the transition of the first bond between the starting bucket and the plurality of price buckets using the state probability ~~first bucket transition distribution~~, thereby producing a first bucket transition distribution ~~a plurality of simulated attributes~~; [[and]]

simulating the transition of the first bond between the plurality of price buckets using the state probability, thereby updating the first bucket transition distribution ~~simulated attributes~~.

identifying a second bond from the portfolio of bonds;

producing a second bucket transition distribution based on the second bond; and

grouping the first bucket transition distribution and the second bucket transition distribution, thereby creating the bucket transition distribution for the portfolio of bonds.

Claim 18 (Previously presented) The computer readable medium of claim 17, wherein one of the price buckets corresponds to an exit state, and wherein simulating the transition of the first bond between the plurality of price buckets step includes estimating a plurality of bucket transitions based on the bucket transition probabilities until the exit state or a maturity date of the first bond is reached, thereby completing a first trial.

Claim 19 (Previously presented) The computer readable medium of claim 18, wherein the exit state is one of a default and a call.

Claim 20 (Previously presented) The computer readable medium of claim 19, wherein simulating the transition of the first bond between the plurality of price buckets includes determining the

probability that the first bond is in a particular bucket at a particular time.

Claim 21 (Previously presented) The computer readable medium of claim 20, wherein one of the price buckets corresponds to a default state and simulating the transition of the first bond between the plurality of price buckets includes determining a default rate for a particular time period for the first bond.

Claim 22 (Previously presented) The computer readable medium of claim 21, wherein simulating the transition of the first bond between the plurality of price buckets includes determining a cumulative default rate for a number of time periods by summing a plurality of default balances for each of the number of time periods and dividing a sum by an average balance for a first of the number of time periods.

Claim 23 (Previously presented) The computer readable medium of claim 17, wherein simulating the transition of the first bond between the plurality of price buckets includes repeatedly estimating a plurality of bucket transitions based on the bucket transition probabilities unit the exit state or maturity date of the first bond is reached, thereby completing multiple trials.

Claim 24 (Cancelled)

Claim 25 (Currently amended) A device for creating a bucket transition distribution for the portfolio of bonds ~~simulating the transition of one or more bonds between a plurality of price buckets~~, comprising a processor configured to:

identify [[the]] a plurality of price buckets;

calculate a plurality of bucket transition probabilities for a first bond from the portfolio of bonds;

estimate a first bucket transition distribution for the first bond using the bucket transition probabilities; [[and]]

simulate the transition of the bond between the plurality of price buckets;

calculate a plurality of bucket transition probabilities for a second bond from the portfolio of bonds;

estimate a second bucket transition distribution for the second bond using the calculated bucket transition probabilities for the second bond; and

group the first bucket transition distribution and the second bucket transition distribution to create a bucket transition distribution for the portfolio of bonds.

Claim 26 (Previously presented) The device of claim 25, wherein one of the price buckets corresponds to an exit state, and wherein the processor is configured to estimate bucket transitions based on the bucket transition probabilities until the exit state or a maturity date of the first bond is reached, thereby completing a first simulation.

Claim 27 (Original) The device of claim 26, wherein the exit state is one of a default and a call.

Claim 28 (Previously presented) The device of claim 27, wherein the processor is configured to determine a probability that the first bond is in a particular bucket at a particular time.

Claim 29 (Previously presented) The device of claim 28, wherein one of the price buckets corresponds to a default state and the processor is configured to determine a default rate for a particular time period for the first bond.

Claim 30 (Original) The device of claim 29, wherein the processor is configured to determine a cumulative default rate for a number of time periods by summing default balances for each of the number of time periods and dividing the sum by an average balance for a first of the number of time periods.

Claim 31 (Previously presented) The device of claim 26, wherein the processor is configured to repeatedly estimate bucket transitions based in the bucket transition probabilities until the exit state or maturity date of the first bond is reached, thereby completing multiple simulations.

Claim 32 (Cancelled)